ABSTRACT OF THE DISCLOSURE

A transmitter for an optical RZ-DPSK communication signal comprises a source for an optical carrier, an electro-optical modulator which comprises at least one element having an optical path length adapted to be varied by an electrical driver signal for intensity modulating the optical carrier based on the driver signal, and a driver circuit for generating the driver signal from an electrical communication signal. The driver signal is an impulse-type signal having two types of impulses spaced in time by a neutral signal state, wherein in the presence of the neutral state of the driver signal at the modulator, the transmission of the modulator becomes zero, and the two types of impulses each cause a transmission different from zero and a phase which is specific for the type of the impulses in the modulator.